Remarks

Applicants respectfully request reconsideration of the subject application, and in particular reconsideration of the interpretation provided of the phrase "substantially identical."

The phrase "substantially identical" appears in several claims of the present application. In the Office Action mailed March 10, 2006, the Examiner explained thoroughly how the phrase was being interpreted. The Examiner stated that because the purpose of a key plate is to prevent the wrong type of ink from being fed into the system, any ink stick that would fit through a particular key plate opening would be considered to have a shape "substantially identical" to the shape of the key plate opening.

Ink sticks having strikingly different perimeter shapes will nevertheless fit through the same key plate opening, and certain ink sticks with perimeter shapes that differ substantially from the shape of the key plate opening will also nevertheless fit through the key plate opening. Submitted with this Office Action is a photograph of a key plate for a solid ink printer. This photograph is not submitted for evidentiary purposes. The photograph is submitted only as an illustration for a line of reasoning. The key plate has four insertion openings, labeled 1, 2, 3, 4. Ink sticks having shapes such as those shown in the following United States Design Patents D478,347 (1); D481,758 (2); D483,062 (3); D482,062 (4) have perimeter shapes substantially similar to the shape of the respective openings of the key plate, except for the perimeter segment at the elongate opening at the "bottom" of each key plate opening. Ink sticks shown in the following United States Design Patents also fit into the key plate openings shown in the photograph, see United States Design Patents D495,735 (1); D495,734 (2); D494,620 (3); D497,176 (4). However, the perimeter shapes of the ink sticks shown in the

just listed design patents differ substantially from the shapes in the earlier listed set of design patents. In addition, different segments of the perimeter shape of the ink sticks of the two different sets of design patents are closer or less close to the shapes of the segments of the insertion key opening of the key plate shown in the photograph. Therefore, that a particular ink stick will fit through a particular insertion opening is not conclusive that the perimeter shape of the ink stick is substantially identical to the shape of the key plate opening.

The Office Action stated that the fact that the key plate of the Crawford reference opens up into a gap along its transverse segment does not mean it does not have a substantially identical shape to the ink stick in Jones et al. The Office Action further referred to the reference to Rousseau et al., and concluded that the receptacle 24A has a substantially identical shape to the ink stick, asserting that if this were not so, the ink stick 10 would not be able to pass into the feed channel.

However, with particular reference to independent claim 4, the ink stick defined includes first and second non-linear key elements, wherein the first and second non-linear key elements each have a shape substantially identical to the shape of a portion of the insertion opening. Thus, the claimed invention includes substantially identical portions of the insertion opening. With all of the cited references (Jones, Crawford, and Rousseau) showing a open gap along the insertion opening segment that is substantially perpendicular to the feed direction, leading to the opening 25A, 25B, 25C, 25D in, for example, the Crawford et al. reference, there is no provision for an ink stick non-linear key element to have a shape substantially identical to the shape of *that portion* of the insertion opening. While several segments of the perimeter shape are similar to corresponding segments of the insertion opening, there is no similarity between the ink stick perimeter segment that is

perpendicular to the feed direction and the corresponding segment of the insertion opening.

With particular reference to independent claim 15, the ink stick insertion perimeter includes an end perimeter segment that forms a leading portion of the ink stick as the ink stick moves in the feed direction along the feed channel, and in which a third of the non-linear key elements is on the end perimeter segment of the insertion perimeter, and wherein the third non-linear key element has a shape substantially identical to the shape of a portion of the insertion opening. The cited references do not suggest that there is any such correlation in shape at the end perimeter segment of the ink stick, such as at the end 15 of the ink stick 12 shown in Figure 2 of the Crawford et al. reference, since the insertion opening leads to the elongate opening 25A, 25B, 25C, 25D. As shown by the referenced design patents, ink sticks with substantially different perimeter segment shapes at that end may all fit within a particular insertion opening. Compare, for example, D478,347, Fig. 1, near end, with D495,735, Fig. 1, near end. Those skilled in the art would not likely consider ink stick perimeter *segments* that are so different from one another to all be "substantially identical" to the same segment of or portion of the insertion opening.

With particular reference to independent claim 22, the solid ink feed system includes a transverse opening perimeter segment, which is specified as being on the portion of the key plate opening toward the melt end of the longitudinal feed channel, and which includes a third non-linear key element. Those skilled in the art would not see the opening into the longitudinal slots 25A, 25B, 25C, 25D as including a non-linear key element on the transverse perimeter segment of the ink stick insertion perimeter.

With respect to the method of independent claim 29, the method includes inserting the ink stick in an insertion direction through the insertion

opening, with at least one non-linear key element shape oriented at least partially transverse to the feed direction of the ink stick, and moving the ink stick in a feed direction past the non-linear key element that is oriented at least partially transverse to the feed direction. The cited references do not include a key element shape across the feed channel, which non-linear shape is past by the ink stick as the ink stick moves in the feed direction along the feed channel.

Applicants respectfully submit that the invention claimed is patentably distinct from the combination of references cited. Applicants therefore respectfully requests allowance of claims 4-6 and 15-30.

If the Examiner considers personal contact helpful to dispose of this case, call David J. Arthur, at Telephone Number (585) 423-9215, Rochester, New York.

Respectfully submitted,

David J. Arthur
Attorney for Applicant(s)
Registration No. 30,707
(585) 423-9215

DJA/cw
June 9, 2006

Xerox Corporation
Xerox Square 20A
Rochester, New York 14644